preventive medicine. Doctor Brunie has mentioned the decrease in infant mortality, in which pediatrics has played a part. Much more important in our minds has been the desire so to assist in the nurture and care of the child in health and disease as to increase the likelihood of an efficient and healthy adult life and a happy old age.

Geriatrics must follow the same procedure as was followed in pediatrics—first gathering a body of facts by the study of case histories, as Doctor Brunie's address has indicated. These facts will form the basis for better understanding of the physical and mental characteristics of the elderly and improved medical treatment. There is no question as to the need for understanding, gentleness and sympathy in the care of the aged. For the young we now have schools, clinics, and countless helpful agencies, while for the old we have places of refuge, pensions, retirement funds and the like which imply that the race is run and the end is near.

But the ability to work, to create, to enjoy is not merely a matter of years. Old age is not necessarily incapacity. Too often old age is preëminently a mental state induced by misfortune, hardship or temporary illness. Elderly people can be useful and happy in the use of whatever powers they have. No one can better appraise the social, mental, and physical aspects of the elderly than the physician. Increased interest in the study of geriatrics must inevitably result in better medical care of those of middle age and react beneficially on medical treatment as a whole.

Doctor Brunie's address presents the opportunity of geriatrics, a field which will richly reward study. It is more than an opportunity. It is a duty.

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FRANKLIN R. NUZUM, M. D. (Cottage Hospital, Santa Barbara).—Doctor Brunie is deserving of much credit for his presentation; his data are carefully assembled and accurately analyzed, while his conclusions are conservatively drawn. My discussion will have to do with a different phase of geriatrics. I wondered how many of my patients were in the older age groups—that is, from 74 years on—when they first consulted me; how many regarded themselves as well; what pathological changes were in those who were not well.

Of 6,600 private office patients, I found that 300 were 74 years old or older. These were divided into three groups; those from 74 to 79 years, inclusive; those from 80 to 84, and those from 84 years and older.

In the group, 84 years old or older, there were 29; males 19, females 10. Of this number, 70 per cent are still living, and 15 per cent are regarded as well. The chief pathological findings in those not well were arteriosclerosis, without hypertension, 32 per cent; hypertension, including arteriosclerotic Bright's disease, 26 per cent; congestive failure, 30 per cent; malignancy, gall-stones, shingles, one patient each.

In the next group, from 80 to 84, there were 66 patients: 34 males, 32 females. Of this number, 60 per cent are still living; 6 per cent are considered well. The pertinent pathological findings in this group were, arteriosclerosis, 36.8 per cent; hypertension, including arteriosclerotic Bright's disease, 37.7 per cent; angina pectoris, 13.6 per cent; congestive failure, 7.5 per cent; malignancy, 6 per cent; senility, 4.5 per cent.

In the group from 74 to 79 there were 200 patients: males 106, females 94. Of this number, 75 per cent are still living, 2 per cent are regarded as well. Of the remainder, hypertension, including 4 instances of apoplexy and arteriosclerotic Bright's disease, was present in 4.5 per cent; arteriosclerosis, in 38 per cent; senile dementia, 2.5 per cent; angina pectoris, 17 per cent; auricular fibrillation, 6 per cent; coronary occlusion, 4.5 per cent; congestive failure, 5 per cent; malignancy, 5 per cent; and pneumonia, 1.5 per cent.

In this brief summary, it is evident that in this medical practice in Southern California the sexes are almost equally divided; about 5 per cent of the total number of office patients were 74 years or older; 75 per cent of these patients are still living, having been followed for a period of several years, some of them since 1926. As was to be expected, the most frequent physical finding was generalized arteriosclerosis (this conclusion reached from a palpation of the peripheral arteries and a study of the arteries of the retina), not associated with hypertension. Second came the hypertensive group, with its associated sclerosis of the peripheral vessels, its cerebral accidents, and in many of these patients clinical evidence of arteriosclerotic Bright's disease. Evident heart disease was present in 30 per cent of the oldest group, in 21 per cent of the group from 80 to 84, and in 32 per cent of that group from 74 to 79. Malignancy averaged approximately 5 per cent. There was a scattering of various other illnesses.

The medical care of these older persons should differ from that given younger individuals, in that it is better to treat the older individual specifically and his illness secondarily. It is certainly not wise to change the lifetime habits of these older people, and to institute a new and markedly changed regimen. To quote Dr. James B. Herrick:

> The doctor has a dual function; he must be scientifically minded toward the disease, yet sympathetically minded toward the patient, feeling (and in the derivational sense of the word), sympathetic and even suffering with him. How is he to acquire that proper balance of these two seemingly conflicting elements, to the end that too much sympathy may not warp his judgment or that too scientific, even mechanistic, an attitude may not lead him to overlook the human or humane feature? This broad balance can be acquired, for it is seen in the best of our practitioners and specialists.

HEALTH PROTECTION AND CARE FOR THE LESS THAN TWO THOUSAND DOLLAR GROUP

By NATHAN G. HALE, M.D.
Sacramento

THE depression has created the necessity of federal aid for millions of destitute families and, by so doing, has established a new economic control over industry and commerce.

The medical profession cannot ignore this changing condition as there now appears to be a widespread dissatisfaction with the present bargaining status between patient and physician. The problem of how to meet this change is paramount.

COMPULSORY HEALTH INSURANCE NOT ADAPTED TO THE UNITED STATES

Compulsory health insurance is not suited to our form of democratic government. Defined, it is something like this: A system that requires the employee to contribute from his wages whether sick or not. The employer is also similarly obligated. This creates a fund for sickness placed under centralized supervision, with additional government taxation to meet any financial deficiency. Out of this fund the doctor is paid usually on a contract basis. (This type of insurance does not include industrial accident insurance.)

CARE OF INDIGENTS A GOVERNMENTAL FUNCTION

Medical care of indigents or the poverty stricken has been a recognized responsibility of the government in the United States, aided by the gratuitous service of the local physicians. The effect of the depression has been to increase this number from an insignificant fraction of the population to the now alarming proportion of about 20 per cent. The many millions of unemployed make it impracticable for private charity or the private physician to carry on the economic and medical care without reimbursement from some government source.

Public hospitals have too many patients and private hospitals too few. Public hospitals are about 85 per cent filled, which is capacity, while private hospitals are 52 per cent filled. The public hospital patronage, therefore, has increased 25 per cent in the last eight years.

TYPES OF PLANS FOR MEDICAL SERVICE

Physicians have ideas as to how to bring medical service within the reach of the average American wage-earner. Some of the plans now are as follows:

1. Voluntary forms of medical insurance which offer a limited protection to a few and limit the amount of protection to those insured.
2. Fraternal associations and their method of sick relief.
3. Sick benefit funds.
4. Trade-union funds.
5. Various other forms.

All the above mentioned cater to a limited group, usually have a faulty organization, and are costly in proportion to the benefits derived.

COST OF MEDICAL CARE IN THE UNITED STATES

In the United States the cost of medical care has been estimated between $50 and $60 a year per person. Can the poor ever pay enough to cover the cost of adequate medical care? Forty-nine per cent of our families have yearly incomes of less than $2,000. Four per cent of their estimated income would amount to $22 per person, which is considered the upper limit for the less than $2,000 class to pay for medical care. The additional $38 per year would have to be obtained elsewhere adequately to care for this less than $2,000 income group. Local taxation would necessarily prove a great burden to certain communities where this group predominates. Therefore, a plan devised with a favorable outlook for the less than $2,000 group will have to contain the elementary principles of national health insurance.

The cost of medical care is increasing. Forty per cent of the gross income of the physician is spent on overhead. The physician cannot assume this added cost of medical care. He is paying the same proportion of taxes as all other citizens, and under the present method assumes responsibility for the care of this group, and its return to health and economic balance without adequate compensation.

Therefore, it becomes a necessity for the Government to aid. This can be done without jeopardizing the family pride or depriving the doctor of his individuality or producing a politically submerged physician.

AUTHOR'S PLAN AND SUGGESTIONS

The Plan: A Health Insurance Subsidy

Congress to establish a Subsidy Fund for illness; the less than $2,000 income class to borrow, a part or all, of the amount necessary, at a low rate of interest, to meet their obligation for drugs, hospital care and physician's fees. Time for payment of the obligation should be extended as conditions warrant, after an investigation of the patients; and the patient's relatives, ability to pay.

The doctor's fee in this group of cases should be set before the contract is made, as in industrial accident cases.

This less than $2,000 class to include the now so-called indigents.

The Government to have control of all hospitals that are subsidized by the Government, which would include all private as well as all public hospitals. The private hospitals are known to be only partially filled (52 per cent), while the Government hospitals are overflowing at 85 per cent. This differential would take care of thousands of beds throughout the country and not require Government expenditure for new hospitals.

If the Government subsidized the vacant beds in private hospitals it should have a local representative on the board of directors. The amount to be paid for beds in private hospitals should be similar to the sum required for the maintenance of Government hospital beds, provided the physical plants are equally good.

Finally, the Government to gradually assume control of those hospitals desiring such a procedure by first amortizing the hospital indebtedness and next acquiring the stock at its present market value.

The Government to Purchase All Drugs and Supplies at Cost Plus:

Few people realize that the sick purchase $715,000,000 worth of drugs annually, which exceeds the total earnings of hospitals and physicians annually. Less than one-third of these drugs are purchased on the advice of physicians, thus making a presumably needless expenditure of $238,000 annually. The less than $2,000 income class is prone to buy patent medicines, often hindering its physical progress and increasing the cost of its sick care in an effort to make a short cut to health. In other words, $360,000,000 annually is spent by patients for treatment after self-diagnosis, and it is not unreasonable to suppose that the less than $2,000 income class also spends its share needlessly. If they represent 40 per cent of the people, it would amount to $144,000,000. The right to purchase at cost plus all recognized or prescribed drugs and other sickness supplies would be a tremendous economic saving for the less than $2,000 class.

Free Choice of Physicians:

Free choice of physicians by all patients, with the right to change physicians as prescribed in medical ethics. This is really the Magna Charta of the patient during his illness, without which political intervention and other intrigues might become a serious detriment to the service of the sick.

Fee Payment of the Doctor:

The fee schedule to be fixed by the Government and the American Medical Association with final approval by the doctors. This simplifies the matter and assures the physician of a living income. In addition, it creates a liaison between the Government and the physician that can be mutually beneficial. Fee payment of the doctor by the Government for this group would redistribute the doctors of the country, not according to the wealth of the community as they are now distributed, but accord-

ing to the density of population. Sickness under the Government Subsidy for illness is not to be associated with relief of the economic status of the patient. It is essential to keep these separate.

There should be lay control of sick benefits, planned from previous experience gained by the methods of lodges and industrial accident reports on the subject. We, as physicians, then devote all our interests to the physicial relief, not on the patient's ability to recover money for his illness.

Physical Examination Twice Yearly:

Physical examinations required twice yearly of all the less than $2,000 income group, thus preventing extensive inroads of disease before being recognized by the patient, causing an additional economic burden necessitating more serious operative procedures or longer medical care for return to normal.

The United States Public Health Service to be used by the Government for the establishment of local health officers devoting their entire time to preventive medicine or prevention of disease by immunization and control of plagues, epidemics or other possible sources of infection.

COMMENT

Such a plan as the above must have just reason to be born and also be practical enough to exist.

Let us review the good points. If the good is better than the evil of such a plan its principle should be adopted.

1. The members of this group, the less than $2,000 income group, are not in any sense of the word charity patients, yet many, due to extenuating circumstances, are forced to use county hospital service. Under the above plan they will receive adequate care without the stigma of being a county hospital patient.

2. They will have free choice of physicians which they often do not have at present.

3. Their burden to the United States is lessened economically.

4. It eliminates from this group the middle man's profit in drugs.

5. It fills the waste space in private hospitals and relieves over-crowding in public hospitals.

6. The partially unemployed do not have to become charity patients.

7. The Government's obligation to its people is fulfilled in time of need, with reimbursement of the Government by those in this class who are financially responsible.

8. Those of this less than $2,000 group, who are healthy are not taxed for the group of unhealthy, except through Government subsidy which the entire nation has to pay.

9. The fact that indigents, after restoration to health, are to be held financially responsible for debts incurred, is important. The plan will soon classify the indigent group who are in this less than $2,000 group into the productive and nonproductive by judging their future ability to pay. There will be a definite group of nonproductive individuals who are mentally or physically incapacitated due to congenital or acquired illnesses, and for this group some definite program can then be logically outlined. As it is now, we do not have any idea how many of these incompetents we have or what we should do with them. They can pile up financial and marital obligations without restraint to the detriment of the future of our Government.

10. We have simplified the care of the sick; we have placed the burden where it economically belongs without creating a political bureaucracy.†

Medico-Dental Building.

THE VALUE OF DIET ANALYSIS IN PEDIATRIC PRACTICE*

By RIETA C. HOUGH, M.D.
AND
MICHAEL J. WALSH, M.Sc.
San Diego

DISCUSSION *by E. Earl Moody, M.D., Los Angeles; Helen B. Pryor, M.D., Stanford University; Helen Hopkins, M.D., Los Angeles.*

DIET, diet fads, and fancies have become almost a phobia with the public in general the past few years. Therefore, a review of the actual facts concerning diet and the method of determining a correct and adequate one does not seem amiss at this time.

In order to follow rapidly the methods used, let us briefly review the basic facts which we all know but which at times slip from our memories.

FOOD REQUIREMENTS

For adequate nutrition every individual has definite needs of energy foods: proteins, fats, carbohydrates; tissue-building foods; minerals; vitamins.

ENERGY REQUIREMENT FOR CHILDREN

Children and adolescents have a relatively higher requirement per pound of body weight than adults, due to the demand for growth.

Childhood energy requirement must provide for energy expenditure plus energy required for growth.

PROTEINS

Children and adolescents require 0.9 to 1.2 grams per pound of body weight, depending upon activity.

CARBOHYDRATES

About 50 to 60 per cent of the total calories should be in carbohydrates.

FATS

The total calories, minus the sum of protein and carbohydrate calories, give us the fat requirement.

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†Author's Note.—This apparently is opposed to my previous policy when socialized medicine was introduced in the State Legislature several years ago. Since then there has been a rapid economic change, with political groups catering to the votes of the multitude, with medical placebos at the expense of the doctor. Therefore, some method must be evolved by the doctors which will preserve their personal relationship with the patient and give them just recompense for services rendered the group mentioned in this article.

I wish to acknowledge facts and statistics obtained from the Economic Survey of the California State Medical Association, and additional facts and data obtained from literature of the California Taxpayers' Association.

* Read before the Pediatric Section of the California Medical Association at the sixty-sixth annual session, Del Monte, May 2–6, 1937.